

REMARKS

I. Status of the Application

Claims 1-2, 11-21 and 24-26 are pending in this application. In the June 10 Office Action, the Examiner:

A. Rejected claims 1-2, 11-12, 17-20 and 24-26 under 35 U.S.C. § 103(a) as being allegedly being unpatentable over US Patent No. 6,931,018 to Fisher (hereinafter “Fisher”) in view of US 6,763,023 to Gleeson et al. (hereinafter “Gleeson”);

B. Rejected claims 13-16 under 35 U.S.C. § 103(a) as being unpatentable over Fisher in view of Gleeson and further in view of US Patent No. 6,658,027 to Kramer et al. (hereinafter “Kramer”); and

C. Rejected claims 21 under 35 U.S.C. § 103(a) as being unpatentable over Fisher in view of Gleeson and further in view of Kramer.

Applicants respectfully request reconsideration based on the following remarks.

II. Discussion Regarding the Patentability of Claim 1

Claim 1 was rejected as being obvious over Fisher in view of Gleeson. Claim 1, however, includes limitations directed to the data switch being configured to not insert an association between a certain MAC address and said first one of the ports into said table *when* the data switch identifies that the certain MAC address is associated with said first one of the ports. As will be discussed below in detail, the proposed combination of Fisher and Gleeson

does not arrive at the invention of claim 1. As a consequence, it is respectfully submitted that the obviousness rejection of claim 1 should be withdrawn.

A. Present Invention

Claim 1 is directed to a data switch having a plurality of ingress/egress ports and for transmitting data packets including a destination address. The data switch has an address table construction means for generating a table containing associations between ports of the switch and MAC addresses of any devices connected to the switch via those ports. The address table construction means is configured to construct said table in respect of all but a first one of the ports. The data switch is configured to not insert an association between a certain MAC address and said first one of the ports into said table *when* the data switch identifies that the certain MAC address is associated with said first one of the ports. Claim 1 thus enables the disabling of MAC address learning for the first one of the ports by omitting certain MAC addresses from the table *when* the data switch identifies that the certain MAC addresses are associated with the first one of the ports.

B. The Examiner's Proposed Combination

In the office action, the Examiner cited Fisher as disclosing all of the limitations of claim 1 except for the limitation that “the data switch is configured to not insert an association between a certain MAC address and said first one of the ports into said table when the data switch identifies that the certain MAC address is associated with said first one of the ports.”

To satisfy this shortcoming of Fisher, the Examiner cited the teachings of Gleeson. In

particular, the Examiner has alleged that Gleeson discloses a switch that is configured to examiner the port that a packet was received on and determine if address learning is disabled on that port before storing the address associated with that port in an address table. (See office action, page 4). In support of this assertion, the Examiner cited col. 6, line 43, lines 46-48, and lines 52-54 of Gleeson. The cited portions of Gleeson disclose how the learning of IP addresses may be disabled for a particular port by checking the port number of an incoming packet. If the IP address learning is disabled for the port, the IP address is not “learned.”

C. The Proposed Combination Does Not Arrive at Amended Claim 1

As explained below, it is respectfully submitted that the combination of Fisher and Gleeson as proposed by the Examiner fails to arrive at a data switch that includes an address table construction means configured to construct a table in respect of all but a first port, and to not insert an association between a certain MAC address and the first port into the table *when* the data switch identifies that the certain MAC address is associated with the first port. Moreover, neither Fisher nor Gleeson disclose a data switch in which MAC address learning or MAC address associations may be selectively disabled

In rejecting claim 1, the Examiner cited Fisher as disclosing that “the address table construction means being operable to construct said table in respect of all but a first one of the ports.” In support of such an assertion, the Examiner stated that “MAC addresses for the machines on LAN interface 140 are stored in a table, but no MAC addresses are stored which correspond to WAN interface 144.” (See Office Action, page 3). The Examiner referred to col. 7, lines 5-7 and the table 500 in Fig. 5 of Fisher in support of this assertion. Thus, the

Examiner asserts that because the table 500 shown in Fig. 5 of Fisher does not show a MAC address and IP address for the WAN interface 144, that Fisher does not store or never stores a MAC address for the WAN interface 144. Applicants respectfully disagree with such a characterization of Fisher. Just because the table 500 of Fisher does not show a MAC address for the WAN interface 144, it does not mean that a MAC address for the WAN interface 144 is not stored someplace else, e.g., another table. Fisher is directed to “a local network router that learns to route IP traffic among customer premises equipment on a local network rather than permitting the IP traffic to be routed through a broadband cable network and selected internet service provider (ISP) to the internet.” (Fisher, col. 3, lines 15-20). Fisher is silent as to how data packets and MAC addresses are handled with respect to an external network and/or the external network interface 144 of Fisher. Therefore, Applicants submit a person of skill in the art would not construe Fisher as disclosing a data switch that includes an address table construction means configured to construct a table in respect of all but a first port.

Furthermore, neither Fisher nor Gleeson disclose or suggest a data switch that is configured to not insert an association between a certain MAC address and said first one of the ports into said table *when* the data switch identifies that the certain MAC address is associated with said first one of the ports. In addition to deficiencies of Fisher outlined in the previous paragraph, Fisher was not cited as disclosing nor does it disclose a data switch that includes an address table construction means configured to not insert an association between a certain MAC address and the first port into the table *when* the data switch identifies that the certain MAC address is associated with the first port. Gleeson was cited as providing such a teaching.

In contrast to claim 1, Gleeson discloses that MAC address learning *is not disabled* or discontinued at any point. In particular, Gleeson discloses that “the layer 3 switch router listens on the network for `router alive` messages. When it detects such a message it reads the source port number that the source MAC address has been learned against. It then writes that port number to a per port register which disables learning for that port. It does not disable MAC address learning so MAC address can continue to be added to the layer 2 database.” (See Gleeson, col. 6, lines 27-34). Moreover, according to Gleeson, “the main feature of the invention is to provide the connection between the router and the switch only by way of a port in respect of which the switch can learn media access control addresses but is unable (for example by being specifically disabled) to learn protocol (IP) addresses.” (See Gleeson, col. 2, lines 40-46).

Thus, Gleeson discloses that MAC address learning continues regardless of the source port number so that packets may be forwarded to the correct device. Because Gleeson teaches that MAC address learning is not disabled at any point, Gleeson does not disclose or suggest a data switch that is configured to not insert an association between a certain MAC address and said first one of the ports into said table *when* the data switch identifies that the certain MAC address is associated with said first one of the ports.

D. Conclusion with Respect to Claim 1

In summary, it is respectfully submitted that the combination of Fisher and Gleeson as proposed by the Examiner fails to arrive at a data switch that includes an address table construction means configured to construct a table in respect of all but a first port, and to not

insert an association between a certain MAC address and the first port into the table *when* the data switch identifies that the certain MAC address is associated with the first port.

Accordingly, for at least this reason, it is respectfully submitted that the rejection of claim 1 over Fisher and Gleeson should be withdrawn.

III. Claims 17 and 24

Independent claims 17 and 24 also stands rejected as allegedly being obvious over Fisher in view of Gleeson. Independent claims 17 and 24 are each directed to a method of operating a data switch, and each of claims 17 and 24 include limitations similar to or substantially the same as limitations found in claim 1. For example, claim 17 includes the limitations of “stopping generation of the table before MAC addresses of at least some devices operably coupled through the first ingress/egress port are associated with the first ingress/egress port in the table.” Claim 24 includes the limitations of “wherein an association between a certain MAC address and said first one of the ports is not inserted into said table when the certain MAC address is identified as being associated with said first one of the ports.” As discussed above in connection with claim 1, even if Fisher and Gleeson were combined as proposed, they would not arrive at a device that elects to stop generation of the table or to not insert a MAC address into a table when such address is associated with a particular port. For the foregoing reasons, which are discussed in detail above in connection with claim 1, it is respectfully submitted that the rejection of claims 17 and 24 over Fisher and Gleeson should be withdrawn.

IV. The Rejection of Dependent Claims 2, 11-16, 18, 21, 25, and 26

Claims 2, 11-16, 18, 21, 25, and 26 were each rejected as being obvious over Fisher in view of Gleeson or obvious over Fisher in view of Gleeson in further view of Kramer. Each of dependent claims 2, 11-16, 18, 21, 25, and 26 depend from and incorporate all of the limitations of one of independent claims 1, 17, or 24. As set forth above, independent claims 1, 17, and 24 are patentable over the prior art. Therefore, each of dependent claims 2, 11-16, 18, 21, 25, and 26 is also patentable over the prior art for at least the same reasons as claims 1, 17, and 24. Accordingly, it is respectfully submitted that the examiner's rejection of dependent claims 2, 11-16, 18, 21, 25, and 26 should be withdrawn.

V. Conclusion

For all of the foregoing reasons, it is submitted that this application is in condition for allowance. Action to that end is hereby solicited. It is respectfully submitted that, if necessary for a timely response, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response and the shortages in fees, if any, be charged, or any overpayment in fees be credited, to our Deposit Account No. 13-0014.

Respectfully submitted,

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